

CLAIMS

1. A screw pump comprising a chamber defining with first and second externally threaded rotors mounted on respective shafts and adapted for counter-rotation within the chamber a plurality of flow paths having respective fluid inlets.
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2. A screw pump according to Claim 1, wherein the inlets are located towards or at a common low pressure side of the chamber, and a fluid outlet is located towards or at a common high pressure side of the chamber.
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3. A screw pump according to Claim 1 or Claim 2, wherein the inlets are formed in a common surface defining the chamber.
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4. A screw pump according to any preceding claim, wherein the inlets are located on a common plane.
5. A screw pump according to any preceding claim, wherein the flow paths merge at a fluid outlet of the chamber.
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6. A screw pump according to any preceding claim, wherein the flow paths are arranged such that fluid flows along the flow paths in substantially the same direction.
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7. A screw pump according to any preceding claim, wherein a first flow path is defined between the internal surface of the chamber and the external surface of the first rotor, and a second flow path is defined between the internal surface of the chamber and the external surface of the second rotor.
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8. A screw pump according to any preceding claim, wherein the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets.
- 5 9. A screw pump according to any preceding claim, comprising a pump body defining said chamber, said body having first and second opposing plates, and wherein the fluid inlets are formed in the first plate and a fluid outlet is formed in the second plate.
- 10 10. A pumping arrangement comprising a screw pump according to any preceding claim, a first pumping unit having an exhaust connected to a first inlet of the screw pump and a second pumping unit having an exhaust connected to a second inlet of the screw pump.
- 15 11. A pumping arrangement comprising:
a screw pump, the screw pump comprising a body defining a chamber housing first and second externally threaded rotors mounted on respective shafts and adapted for counter-rotation within the chamber, the rotors defining with the body first and second flow
20 paths passing through the chamber, each flow path having a respective fluid inlet located in said body;
a first pumping unit having an exhaust connected to the fluid inlet of the first flow path of the screw pump; and
a second pumping unit having an exhaust connected to the
25 fluid inlet of the second flow path of the screw pump.
12. A pumping arrangement according to Claim 11, wherein the inlets are located towards or at a common low pressure side of the chamber, and a fluid outlet is located towards or at a common high
30 pressure side of the chamber.

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13. A pumping arrangement according to Claim 11 or Claim 12, wherein the inlets are formed in a common surface of the body.
14. A pumping arrangement according to any of Claims 11 to 13,
5 wherein the inlets are located on a common plane.
15. A pumping arrangement according to any of Claims 11 to 14, wherein the flow paths merge at a fluid outlet of the chamber.
- 10 16. A pumping arrangement according to any of Claims 11 to 15, wherein the flow paths are arranged such that fluid flows along the flow paths in substantially the same direction.
- 15 17. A pumping arrangement according to any of Claims 11 to 16, wherein a first flow path is defined between the body and the external surface of the first rotor, and a second flow path is defined between the body and the external surface of the second rotor.
- 20 18. A pumping arrangement according to any of Claims 11 to 17, wherein the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets.